lower price levels is strong indication that investors are not overly concerned about insurmountable cost advantages of the incumbents.

III. THE COST OF MAINTAINING DOMINANT REGULATION OF U S WEST'S HIGH-CAPACITY SERVICES

In the AT&T nondominance order (e.g., par. 32), the FCC describes graphically the high social costs of continued asymmetrical regulation: (1) the longer tariff notices imposed on AT&T dampened its incentives to innovate, because rivals could respond to its innovations even before it could actually offer them; (2) these filing requirements dampened the regulated company's incentives to reduce prices; (3) the dominant firm's competitors could use the asymmetrical regulatory process to delay and undermine its initiatives; and (4) regulation imposed administrative costs on both the regulated firm and the FCC.

The dominant firm regulation at issue in these proceedings involves the same kinds of costs—compounded in the present instance by the ability of the CLECs to offer complete bundles of services, including interLATA, while the ILECs cannot respond in kind until such time as their 271 applications are successful. Ironically, these applications are being held up pending demonstration that their local markets are sufficiently open to competition!

The upgrading and modernization of the switched public network and the fullest exploitation of its capability of offering a variety of sophisticated and innovative services—which are the central goals of the Telecommunications Act of 1996—depend not just on freeing the telephone companies and all others from restrictions and handicaps on their ability to do so; it also requires offering all parties the full, undiluted incentives of a free market system to undertake the requisite, typically risky investments.

Those incentives are of two kinds. The first is the stimulus of competition itself. The strongest case for substituting the discipline of competition for that of regulation is the superior ability of the former to exert pressures on all producers to be efficient and innovative, if they are to survive, let alone prosper. Outstanding, unequivocal illustrations are the wholesale adoption of hub and spoke operations and the development of computerized reservations systems by the airlines after their deregulation, and the widespread adoption of just-in-time inventory systems made possible only by the freedom of truckers, conferred by their deregulation, to enter into binding contracts with penalties for failure to perform according to stipulated standards.

The second is the self-interest of the telephone companies, freed from continuing restrictions on the services they are permitted to offer. If they are to undertake the risks of investments in innovation, they must see the prospect of retaining the profits of the ones that turn out successfully, symmetrically with their bearing the full costs of the failures. This requires genuine deregulation.

Particularly during the next several years, when competitors in markets formerly protected by regulation will attempt to enter each other's domains in innovative, often unpredictable ways, it is essential that we not weaken the second of these incentives in a misguided effort to strengthen the first. Attempts to micromanage the process of deregulation, we have found in other industries, are more likely to produce distortions than actually to encourage efficient competition.[52] Ultimately, both incentive systems require the shrinking of

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[52] Alfred E. Kahn, "Applications of Economics to an Imperfect World," the Richard T. Ely lecture, *The American Economic Review, Papers and Proceedings*, Vol. 69, No. 2, May 1979, pp. 1-13.

regulation and of all such regulatory restrictions to the absolute minimum and entrusting protection of the public to deregulated competition—subject, as always, to the constraints of the antitrust laws.[53]

IV. CONCLUSIONS

Following the approach the FCC has previously used to assess market power for other services, we have concluded that the market for high-capacity services in the Seattle area fully exhibits its stipulated indicia of competition. In particular, (1) US WEST has a diminishing market share—indeed, it serves only 20 percent of the retail market—and is providing much less than one-half of the facilities required to satisfy incremental demand at wholesale; (2) customers are highly sensitive to price and other dimensions of service; (3) US WEST's existing competitors can readily expand their capacity sufficiently to displace it entirely, if it were to attempt to price monopolistically; moreover, barriers to entry of new competitors are minimal; and (4) U S WEST's size gives it no insurmountable advantage.

All the evidence is of vigorous, intensifying competition in the offer of high-capacity services, which strongly suggests that if the FCC grants U S WEST's Petition, there is virtually

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[53] See Kahn, *Letting Go: Deregulating the Process of Deregulation*, Michigan State University Institute of Public Utilities, 1998. One of us has, especially in recent months, strongly propounded the view that some of the responses by incumbent airlines to competitive entry may well have been predatory in both intent and effect. Kahn, "Comments on Exclusionary Airline Pricing," Submission to the Department of Transportation, September 25, 1998. We have therefore explicitly considered the question of whether, if accorded non-dominant status, U S WEST could successfully engage in the same sort of tactic in response to entry by firms such as AT&T and MCI WorldCom—sufficiently to conclude emphatically that it would be simply impossible. It should suffice to demonstrate the fundamental difference between the two situations to point out the vast difference between the resources of incumbent airlines and their upstart challengers—in contrast with the far closer to parity of U S WEST and its major local challengers; and, in a sense even more fundamental, the ability of incumbent airlines greatly to increase their capacity on the challenged routes, temporarily, and by so doing to force the entrants to pull their equipment out, whereas—as we will point out below—the fiber optic facilities of the new entrants in the provision of high capacity service, once installed, are sunk, with marginal costs only a

no likelihood that it will ever regain a dominant position such as would call for reregulation of this market.[54] The relevant historical precedents indicate that regulators have little to fear from premature relaxation of regulation in these markets. For example, AT&T's market share has continued to decline since it obtained nondominant status in late 1995.[55]

Competition itself, without dominant firm regulation, is sufficient to deny U S WEST the ability to impose anticompetitive prices and other conditions in this rapidly expanding, competitively turbulent market. In these circumstances, the costs of continued dominant firm regulation in this market clearly exceed whatever benefits it could possibly confer.

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small fraction of their total costs.

[54] See note 53, above.

[55] Federal Communications Commission, *Trends in Telephone Service*, February 1998.

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HIGH CAPACITY COMPETITION IN SEATTLE: REPLY TO COMMENTS OF INTERVENING PARTIES

Alfred E. Kahn and Timothy J. Tardiff

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March 10, 1999

I. INTRODUCTION

Several parties, for the most part U S WEST's competitors in the sale of high capacity services, oppose the Company's request for non-dominant status. They argue that U S WEST continues to enjoy market power, and for this reason has not met the requirements of Section 10 of the Telecommunications Act of 1996. Their conclusions flow from (1) an overly broad definition of the relevant market, the effect of which is to understate the level of competition; (2) understatement of the size of competitors; (3) understating the elasticity of demand for U S WEST's services—the ease with which customers can and do change suppliers; (4) understating the elasticity of competitive supply—the ability of competitors to expand their operations; and (5) speculative predictions of anti-competitive conduct (cross-subsidization and predatory pricing) that is simply inconceivable in the face of the continued regulation of other services and refuted by the actual experience of active competition for high capacity services that we described in our opening paper.

Significantly, no party has provided information that undermines our basic factual presentation. Some of them have either accepted the market share information we relied upon

or offered data that, when properly interpreted, are not inconsistent with it.[1] Other purportedly contradictory information that they did present is itself contradicted by other statements of theirs elsewhere and/or by their own actions in the market. For example, both AT&T and MCI Worldcom complain in imprecise terms about the difficulty new entrants face in attracting new customers and in expanding their networks to reach new locations. If the world really were so hostile, one wonders why both of these companies have spent tens of billions of dollars to acquire CLECs that have given them a major presence in Seattle and other major cities as suppliers as well as users of high-capacity services. While entry into these markets is no doubt challenging, the actions of firms like AT&T and MCI and the growing competition that they have produced speak much more loudly than their advocacy in regulatory proceedings of continued restrictions on one major competitor.

II. MARKET DEFINITION

Parties commenting on our definition of the relevant market as confined to high capacity facilities in the Seattle metropolitan area have suggested that the product market is larger (embracing all local exchange services) and that the geographic market may be smaller (specific

[1] AT&T and MCI attempt to contradict the 28 percent market share of the CLECs estimated by Quality Strategies by asserting that they made 88 percent and 85 percent, respectively, of their open market purchases of high capacity services from U S West. What they neglect to point out is that the apparent conflict between these estimates could well be explained by AT&T's recent acquisition of TCG and MCI's merger with WorldCom, which had the effect of transferring about 80 percent of the high capacity volumes reported by Quality Strategies as (open-market) *sales* by CLECs to intra-corporate transfers *within* these companies—and correspondingly increasing U S West's share of the now-shrunken volume of open-market sales. There is, therefore, no necessary conflict between these two sets of figures if the two largest customers buy out the two largest previously independent competitors of U S West, who accounted for the major share of the sales volumes of independents reflected in the Quality Strategies estimate, that hardly proves that the Quality Strategies estimate of U S West market share understated its marked dominance!

point-to-point routes). Except for Focal Communications,[2] none of them has offered any specific criticism of our method of defining the market, which, as we pointed out in our opening paper, follows closely the method employed by the antitrust authorities. Specifically, our definition is dictated by the lack of demand response by customers of low- and high-capacity facilities, respectively, to changes in the price of the other: none of the comments convincingly contradicts our reasoning on this point, which we would in any event have regarded as self-evident. Our definition of the geographic scope of the market was a practical one, based on the observed entry patterns of competitive carriers.

That the relevant product market is narrower than the all-local-exchange-services definition proffered by some critics is richly illustrated by the market behavior and explicit public declarations of alternative access providers. For example, according to AT&T's press release issued upon completion of its recent acquisition of Teleport Communications, which greatly strengthened its market position in the offer of exchange access services in Seattle and elsewhere:

> 'Completion of this merger accelerates our entry into the $21 billion *business* local service market because we're reducing our dependence on the Bell

[2] In our opening paper, pp. 3-4, we explicitly define the market as encompassing customers of sufficient size to find high capacity service economical—these would be mid-sized to large businesses. In criticizing our definition, Focal suggests that there is a tradeoff between voice grade and high capacity service. The answer is that this observation—to the mere effect that substitution is physically possible—ignores the question of whether and in what circumstances tradeoff is *economic*. Because high capacity services are the economic choice at current prices for these customers, but not for smaller customers, the fact that these larger customers could make uneconomic use of voice grade lines does not put high and low capacity lines in the same product market.

> Companies for direct connections to businesses,' said AT&T Chairman C. Michael Armstrong. ...[3]

Manifestly AT&T views business local services as separate from residential.[4] Since TCG's high-capacity fiber optic network is clearly capable of supplying both "low-capacity" and high-capacity services to that business market, our further delimitation of the relevant market in this case confining it to these latter services was justified not on supply-side considerations but on the non-substitutability of low- and high-capacity services.

Similarly, our confinement of the definition of the relevant market to services to businesses is in no way contradicted by the major steps AT&T has taken to serve the residential market by its acquisition of TCI and joint venture with Time-Warner, using cable television lines: for example, in an otherwise self-serving editorial complaining about switched access charges, Mr. Armstrong reported that AT&T intends to bypass the ILECs to serve *residential* customers:

> AT&T is on its way to bypassing the local telephone loop and reaching customers directly over cable-television lines thanks to our merger agreement with TCI and our joint venture with Time-Warner. These agreements will eventually give us access to more than 40% of all American homes.[5]

Just as with respect to TCG's ability to supply both low- and high-capacity services, so here, AT&T's intention to offer services to both residential and business customers does not in any

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[3] "AT&T Completes TCG Merger; TCG Now Core of AT&T Local Services Network Unit," AT&T News Release, July 23, 1998, emphasis added. The Release went on to describe how the TCG acquisition facilitates its offer of Digital Link service, an arrangement that employs high capacity links to business customers.

[4] Similarly, MCI WorldCom, following approval of its merger, recently announced a marketing initiative that targets offerings to *business* customers that combine local, long-distance, voice, and data services for calls on its network. "MCI WorldCom Sets Major Marketing Plan for Business Clients," *Wall Street Journal*, September 29, 1998.

[5] *The Wall Street Journal*, March 1, 1999, p. A22.

way invalidate our definition of the relevant market in these proceedings as confined to business services: that definition, by the same reasoning, is justified not on supply-side grounds but on the grounds of the non-substitutability of the two kinds of services on the demand side.

The incorrect broader market definition proffered by opposing parties would have the effect—as it clearly also has the purpose—of inhibiting U S WEST's response to the strong competition of which AT&T itself boasts and which other providers are also offering in Seattle. While such restrictions would undoubtedly protect AT&T and the others from that competition, they would deprive customers of the attractive prices and services that U S WEST would be able to offer if it were accorded the greater flexibility of non-dominant status—a flexibility that AT&T and other providers, of course, already enjoy.[6]

III. COMPETITORS HAVE CAPTURED A COMPETITIVELY SIGNIFICANT SHARE OF THE HIGH CAPACITY MARKET

While offering no serious rebuttal to our estimate of the presence and size of alternative high capacity providers in Seattle, the intervening parties offer different interpretations of those basic facts with the intent of minimizing them. These misleading interpretations include: (1) the argument that market shares should be based on revenues, rather than volumes; (2) the dismissal

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[6] One of us has, especially in recent months, strongly propounded the view that some of the responses by incumbent airlines to competitive entry may well have been predatory in both intent and effect. Kahn, "Comments on Exclusionary Airline Pricing," Submission to the Department of Transportation, September 25, 1998. We have therefore explicitly considered the question of whether, if accorded non-dominant status, U S WEST could successfully engage in the same sort of tactic in response to entry by firms such as AT&T and MCI WorldCom—sufficiently to conclude emphatically that it would be simply impossible. It should suffice to demonstrate the fundamental difference between the two situations to point out the vast difference between the resources of incumbent airlines and their upstart challengers—in contrast with the far closer to parity of U S WEST and its major local challengers; and, in a sense even more fundamental, the ability of incumbent airlines greatly to increase their capacity on the challenged routes, temporarily, and by so doing to force the entrants to pull their equipment out, whereas—as we will point out below—the fiber optic facilities of the new

of U S WEST's small share of the retail market as having any competitive significance; and (3) the presentation of Herfindahl-Hirschman (HHI) indices in an attempt to demonstrate that the Seattle high capacity market is excessively concentrated.

In addition to their attempt to introduce misleading estimates of the current *level* of competitive presence, they are for the most part silent on the rapid *growth* in the market share of U S WEST's competitors. As we pointed out in our opening paper, the CLECs in Seattle have captured over two thirds of the growth in the rapidly expanding high capacity market.[7] As a result, US WEST's share has continued to decline from the levels we reported earlier. Quality Strategies reports that between the end of 1997 and the middle of 1998, it fell from 72.8 percent to 64.2 percent. While its share of sales to end users has remained fairly constant at about 65 percent, its market share for IXC transport declined by 11 percentage points to about 63 percent.[8] The rapidity of this growth and the CLECs' ability to capture so large a share of it are of greater competitive significance than any static measures of their market share.

A. Measuring Market Shares: Dollar Sales or Physical Volume?

Turning first to the proper basis for calculating market shares, we appraise first the claim of opposing parties that (1) basing it on dollar sales rather than physical volume (DS-1

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entrants in the provision of high capacity service, once installed, are sunk, with marginal costs only a small fraction of their total costs.

[7] Thus, Sprint's supposition that the high capacity market will contract and firms will exit is grossly inconsistent with recent history and the strong growth of CLECs that we discussed in our opening paper.

[8] The market share changes between the end of 1997 and the middle of 1998 are not affected by the considerations addressed in footnote 1, because neither AT&T's acquisition of TCG nor the MCI/WorldCom merger had been completed.

equivalents) would produce a higher share for U S WEST and (2) this would also be a better indicator of market power.

As for the first of these assertions, that is indeed what one would expect from the fact that U S West has a larger share of DS-1 than DS-3 sales, reflecting the tendency of the CLECs to concentrate on the higher-volume customers, and while a DS-3 line has 28 times the capacity of a DS-1, U S WEST's prices for the former are only 7.75 times its prices of the latter. In view of the fact, in other words, that the price of DS-1 equivalent capacity is higher when sold as DS-1 than in the form of DS-3, and U S WEST's sales are more concentrated in the former than its competitors, one would expect its market shares, as measured by revenues, to be higher than when calculated on the basis of DS-1 equivalents. The difference turns out, however, to be quite small: the data presented by Quality Strategies demonstrate that U S WEST's share of DS-3 sales, of 59.1 percent, is only 10 percentage points lower than its share of DS-1 sales (69 percent). Its overall market share of revenues, at 67.5 percent, is therefore not much higher than its share of DS-1 equivalents, of 65.2 percent.[9] Further, the difference between U S West's market shares as measured in dollars and in DS-1-equivalents for the Provider segment is likely to be greater than the difference between the two measures as applied to total sales, because both U S WEST and the CLECs are likely to use DS-3 preponderantly in providing transport; in consequence, if we were to look to their *total* sales of high-capacity services, the difference

[9] U S WEST's overall share of DS-1 equivalents (65.2 percent) is a weighted average of its share of DS-1 sales (69 percent) and DS-3 sales (59.1 percent), where the weights (61 percent and 39 percent) are the respective shares of DS-1s and DS-3s of overall DS-1 equivalent sales. Because the ratio of the DS-3 price to the DS-1 price is 7.75, while the capacity ratio is 28, sales of DS-1 equivalents through DS-3 facilities produce only about 28 percent of the revenue that DS-1 sales produce (7.75/28). This lower revenue yield reduces the DS-3 share of total *revenues* to 15 percent, which when used in a weighted average, produces U S WEST's higher share (67.5 percent) of total revenue than of DS-1 equivalents.

between U S West's shares measured in revenues and DS-1 equivalents would probably turn out to be less than the difference displayed by sales in the Provider segment alone.

As a theoretical matter,[10] the objective in any such calculation is to measure the competitive significance of the smaller firms. In contrast with the critics of U S WEST's previous contentions, Landes and Posner present a compelling case for assessing the competitive significance of challengers by taking into account not just their actual output but their *total physical capacity*:

> ...the sum of the capacity, or potential output, of competitors and the current output of the firm in question should be the denominator in computing the firm's market share. The greater the difference between capacity and current output, the greater is the supply elasticity of competing firms, and therefore the greater is the constraint that these firms place on a firm that tries to raise price above marginal cost.[11]

The *Horizontal Merger Guidelines* set forth the respective bases for using dollar sales or physical sales:

> Market shares will be calculated using the best indicator of firms' future competitive significance. Dollar sales or shipments generally will be used if firms are distinguished primarily by differentiation of their products. Unit sales generally will be used if firms are distinguished primarily on the basis of their relative advantages in serving different buyers or groups of buyers. Physical capacity or reserves generally will be used if it is these measures that most effectively distinguish firms.[12]

In the present instance, involving sales to typically well-informed buyers, it seems unlikely that product differentiation would be determinative: modern telecommunications

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[10] We presented this analysis in our opening paper, page 6-8. Because the opposing parties have completely failed to respond, we are compelled to repeat this material.

[11] William M. Landes and Richard A. Posner, "Market Power in Antitrust Cases," *Harvard Law Review*, Vol. 94, 1981, p. 949.

networks are distinguished most fundamentally by their physical ability to transmit information. The newer entrants may emphasize lower-priced uses of capacity as an entry strategy. As they become established, however, their full capacity would be available to compete against the incumbent and the other entrants. The implication of these several considerations, we suggest, is that, if anything, our use of market shares defined in terms of current sales, in physical units, without taking into account the *capacity* of the competing providers of high-capacity service in Seattle, understated their competitive significance.[13]

B. Measuring Market Shares. Retail or Wholesale?

In our opening paper, we emphasized U S WEST's shrunken share of the retail market–now about 20 percent. As we pointed out, the competitive significance of this dramatic decline is by no means confined to competition in the sale of high-capacity services alone: the manifest success of U S WEST's competitors in attracting customers for those services clearly foreshadows their probable success in offering the complete range of retail services, combining local, long-distance, voice and data traffic in one package.[14] Moreover, once a competitor such as AT&T and MCI WorldCom captures an end-use customer, it has strong incentives to shift

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[12] US Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, April 2, 1992, Section 1.41.

[13] Recall that our measure assigned a share of 73 percent of DS-1 equivalents to U S WEST (which has subsequently declined to 64 percent). Landes and Posner (*ibid.*, p. 950) discuss an example in which a firm with 80 percent share lacked market power. In that case, (1) over the previous decade, the firm's share had fallen from 100 percent to 80 percent and (2) further entry and expansion is relatively easy. As our opening paper demonstrated, these characteristics are exhibited likewise by the high capacity market in Seattle. The reasoning of Landes and Posner would therefore justify the conclusion that U S WEST lacks market power in the sale of these services.

[14] As the statement by AT&T's Chairman Armstrong to which we have already referred (note 3, above) continued:

traffic from ILEC facilities to its own network, as we explain in more detail below. In contrast, intervening parties, primarily the three interexchange carriers (AT&T, MCI, and Sprint), criticize U S WEST's citation of its 20 percent of the retail market, claiming that it has minimal competitive significance. This belittling of the importance of direct contact with sophisticated retail buyers ignores several critical economic facts that we discussed in our opening paper and review here:

- In its non-dominance proceedings, AT&T's own consultants argued that the 12 percent share of resellers in the long-distance business was sufficient to constrain the pricing behavior of the major IXCs, who collectively held the other 88 percent. The FCC agreed with them. These are the very same IXCs that now downplay the importance of resale in the present case. The competitive significance of resellers is that in the presence of alternative suppliers of capacity, resellers can drive hard bargains on the price of that capacity—just as they have in the long-distance business.

- High capacity buyers are sophisticated business consumers and their retail suppliers, with 80 percent of that business, have a growing number of alternative sources of the high capacity inputs they require. Once a retail supplier has attracted a base of customers, it can relatively easily shift its purchases among alternative suppliers of capacity: that is what makes it possible for it to drive hard bargains even in dealing with suppliers that own the major share of the underlying capacity. This bargaining power is of course enhanced by the ability of such successful retailers to construct their own underlying

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'We're giving customers simplicity, convenience and choice. It's one-stop shopping for local and long-distance service, just for starters,' he said.

facilities. The very rationale for acquiring Teleport that AT&T described in the press release from which we have just quoted was to offer its sophisticated customers "one-stop shopping" and to lessen its dependence on Bell companies in supplying these services and facilities. There can be no doubt, for example, that AT&T's ability to divert market share at the wholesale level from U S WEST to the high capacity Teleport facilities that it now owns is substantially enhanced by its offer of long-distance (e.g., MEGACOM) and local (Digital Link) services that employ that kind of access. Similarly, MCI WorldCom has clearly stated its intention to migrate access traffic from ILEC networks to its own combined network:

> Part of the rationale for WorldCom's acquiring MCI was that the combined company could meld its networks to create a seamless system for global communications. The largest expense for MCI, as a long-distance carrier, had been fees paid to local phone companies for beginning and ending calls.
>
> MCI WorldCom now wants essentially to eliminate those fees for business customers who use the company for local and long-distance calling. For a conversation or data message that travels exclusively on MCI WorldCom's network, rates could decrease by as much as 35 percent, the company said.[15]

C. Incorrect Applications of HHI Indices

Sprint and GST calculate an HHI index[16] of about 5,500 based on U S WEST's reported 73 percent share of high capacity volume—a figure that would be reduced to about 4,500 by taking into account the fact that U S WEST's current market share is only 64 percent. Because this figure is higher than the value of 1,800 designated by the *Merger Guidelines* as denoting a

[15] Seth Schiesel, "FCC Blocks Two Bells on Long-Distance Entry," *The New York Times*, September 29, 1998.

highly concentrated industry, these parties conclude that non-dominant treatment is not appropriate. Their calculation does not support this conclusion for a number of reasons.

First, the antitrust authorities use the HHI as one indicator of whether to approve *mergers* that could lessen competition in an industry. They make no claim that the 1,800 cutoff point is a proper basis for deciding whether or not an industry should be regulated: on the contrary, they would unquestionably reject any such inference. Unregulated industries with HHI's well above 1,800 are far from uncommon. To cite an especially pertinent example, the long-distance industry had an HHI of about 4,000 at the time the FCC granted nondominant status to AT&T. The unregulated central office equipment industry has a similar concentration. In the airline industry, HHIs are high in many markets, because a small number of carriers dominate; yet no serious commentator advocates reregulation of that industry.

Second, as we have already pointed out, our market share estimate, which is based on DS-1 equivalent sales, understates the competitive significance of CLECs, according to the logic expounded by Landes and Posner, such an assessment would take into account their total capacity. The resulting measure would reduce U S WEST's share and the associated HHI.

Third, the HHI for *retail sales* is much much smaller. A market share of 20 percent for U S WEST produces an HHI of 2,533, under the assumption that the remaining 80 percent of the market is evenly distributed over the three competing CLECs— a figure of course very substantially lower than that of the long-distance market at the time when AT&T requested and the FCC granted it non-dominant status.

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[16] The HHI index is the sum of the squares of the shares of the firms in the market in question. For example, if

IV. ABILITY OF COMPETITIVE SUPPLIERS TO EXPAND

The FCC's previous analysis of nondominant status appraised three separate indicia of the ability of competitors to expand: (1) demand elasticity, (2) supply elasticity, and (3) cost structure and financial capabilities of those competing firms. We made each of these appraisals of the high-capacity market in our opening paper, demonstrating that customers are indeed willing to shift suppliers and competitors in Seattle have sufficient ability to meet their demands; and we therefore concluded that this existing and growing competition disciplines U S WEST's ability to price anticompetitively sufficiently to deprive it of market power in the sale of these services.

In response, the intervening parties suggest specific impediments to competition: (1) long-term contracts, (2) expansion costs higher than those estimated by PEI, and (3) the relatively small size of particular competitors. Our general response is that the intervenors have offered no guidance whatever about the importance and magnitude of the first asserted impediment and that market developments clearly demonstrate that these several asserted factors have not in fact proved to be major barriers to the healthy growth of competition.

With regard to the first asserted barrier, U S WEST estimates that while approximately 70 percent of its high capacity revenues are subject to such agreements, approximately half of them (measured by revenue) are subject to modest (15 percent) termination charges and two-thirds of these will expire within three years. Entirely apart from the possibility of competitors inducing customers to cancel their contracts, there is clearly a rough synchronization of the rates

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two firms split a market, the HHI would be 5,000 ($50^2 + 50^2$).

at which contracts will expire and competitors can construct facilities. The facts that we cited in our opening paper provide powerful testimony to the fact that, despite the (typically short-term) contracts, competitors *are* enjoying a rapidly increasing share in a rapidly growing market. Indeed, we observed, new entrants are capturing over two-thirds of the new demand and they have already captured 80 percent of the retail market. No responding parties have offered any information that seriously undermines these figures. In fact, their actions corroborate our conclusions: we have already cited AT&T's own proclamation that its acquisition of Teleport in 1998 would enable it to offer very attractive products to business customers and the provisioning of its requirements from facilities of the Bell Companies.

The supply elasticity story is similar.[17] In spite of the specific obstacles cited by the intervening parties—e.g., gaining access to buildings—the fact remains that CLECs *are* attracting capital and *are* expanding at a rapid rate. Clearly, the particular obstacles cited by these intervenors have not deterred either investors or their own managements from providing the funds to expand operations. Again, AT&T's words at the completion of its acquisition of Teleport provide some real-world market perspective on this issue:

> TCG has more fiber route miles and serves more businesses in more cities than any other competitive local service company," Armstrong said. "The strategic value of this merger...positions AT&T for growth and undisputed leadership in three of the fastest growing segments of the communications services industry–consumer, business and wholesale networking services.
>
> TCG, with more than 10,000 miles of fiber optic cable and 50 local switches, is the nation's premier provider of competitive communications services. Its network encompasses more than 300 communities coast to coast. Armstrong

[17] MCI WorldCom claimed, without documentation, that its cost of expanding to meet new demand are considerably higher than PEI's estimates. PEI's reply declaration for the Phoenix petition, responding to the same criticisms by MCI WorldCom, explained why its cost estimates there were reasonable. That response serves equally well for Seattle.

said that AT&T also pledges to devote substantial resources to continue the building of facilities in critical markets.

The ultimate point of GST's detailed discussion of the cost structure and financial capability of competing carriers is, simply, that it is much much smaller than U S WEST, as indeed it is. This fact alone has no competitive significance, however: what is relevant is the *combined* capabilities of existing and potential CLECs in Seattle and their ability to expand their capacities as a group: these, we have demonstrated, are indeed impressive—sufficient, objectively, to severely constrain U S WEST's ability to exert monopoly power. More important are the prospects for growth of existing carriers and new entry. As we pointed out in our opening paper, the CLECs are expanding rapidly and having no trouble attracting capital to fund further expansion. Moreover, even a relatively small firm can exert competitive discipline on a much larger rival. For example, in 1988, Compaq generated only 3 percent of IBM sales, yet its personal computers were highly competitive with IBM's. Today, Compaq's sales are 35 percent as large as IBM's overall and it has surpassed that company in sales of personal computers. The morals of this history lesson are (1) small guys can compete effectively and (2) if they are successful, they grow up to join the big guys.

V. U S WEST HAS NEITHER THE INCENTIVE NOR THE ABILITY TO ENGAGE IN ANTICOMPETITIVE BEHAVIOR

The opponents of U S WEST's petition warn of the twin dangers of cross subsidization and predatory pricing. With regard to the former, the question arises of what prices would be raised to fund the anticipated anticompetitive behavior. For firms subject to partial regulation, there are, arguably, three: prices for services subject to (1) nondominant regulation; (2) federal

price caps; and (3) state regulation. None of these would in fact be possible under U S WEST's proposal, for the following reasons:[18]

First, although nondominant regulation of high capacity services in Seattle could allow U S WEST to *raise* those prices, that would hardly make sense as a means of financing the cross-subsidization of its sales of those same services. The opponents of the regulatory change that U S WEST proposes here can hardly have it both ways—that their fear is, at one and the same time, that when subjected to less stringent regulation, U S WEST would compete unfairly with them in the sale of its high-capacity services in Seattle by at one and the same time reducing those prices and raising them in order to finance those reductions. Nor would it make sense for it to raise the prices of such services, subject to nondominant regulation, elsewhere, when the basis for that regulatory change is or would have to be a finding that those prices were sufficiently constrained by competition to prevent raising them in this way.

As for the second possibility—namely, that U S WEST could raise other prices subject to federal price cap regulation--as a matter of simple arithmetic, it would have *less* flexibility to raise those prices if its high capacity services in Seattle were to be granted nondominant treatment and removed from price caps. This would be so because removal of those services from the price caps would mean that when and if U S WEST exercised its newly conferred

[18] The intervening parties allude to another predicted competitive problem, stemming from U S WEST's asserted control of bottleneck facilities. The first and most critical answer is that U S WEST has no such power in the market in which it requests non-dominant treatment, because those are the very facilities whose supply is now competitive: the CLEC facilities and their ability to expand them have eliminated whatever bottleneck existed in the high capacity market in Seattle. Second, for other markets, bottleneck control presents a problem in the current instance only insofar as it might permit U S WEST to raise its charges for access to those facilities for the purpose of cross-subsidizing its high capacity offerings in Seattle. As we describe presently, however, current regulation is sufficiently strong to preclude that. Moreover, it would obviously be irrational and